#### LAKE PROGRAMS IN OTHER STATES

The following descriptions and table on lake programs from other States was extracted from a report by Lisa Conley, North American Lakes Management Society (NALMS), in an email message on March 23, 1998, and from State web pages. States that are not listed either indicated no lake program activities in the survey or web pages (AR, HI, ID, NC, ND, NV, OH, WV) or did not respond to the survey and information was not evident regarding lakes on their web pages (AZ, CO).

## Glossary

- 104 EPA Section 104 Clean Water Act source of funding.
- 303(d) EPA Section 303(d) requires list of waters not attaining designated uses.
- 314 EPA Section 314 Clean Water Act source of funding specifically for lake diagnosis, restoration, and monitoring projects (Clean Lakes program); *program funding was eliminated from the federal budget in 1995*.
- 319 EPA Section 319 Clean Water Act source of funding (Nonpoint Source program).
- BMP "best management practice" projects to control pollution.
- Phase I study diagnostic study to identify problems and recommend actions in lake watersheds under 314 or similar study under other sources of funding.
- Phase II activities restoration projects in lake watersheds under 314 or similar project under other sources of funding.
- Phase III study monitoring study after a restoration project in lake watersheds under 314 or similar study under other sources of funding.
- TMDL "total maximum daily load" calculation to determine how much of a designated set of pollutants can be permitted in a waterbody listed under 303(d).

## **State summaries**

Web site listing addresses for other state EPAs – http://waterquality.deq.state.or.us/wq/Pages/Websites.htm Web site listing addresses for other state DNRs – http://www.dnr.state.in.us/dnrother.htm

## Alabama

- five Phase I studies completed, no longer funded; few basin specific lake assessments under 319.
- statewide lake monitoring program funded under 106 or 319.

## Alaska

- lake water quality monitoring until 1995.
- citizen monitoring program available, but not currently addressing lakes.
- one lake project cancelled.

#### California

# http://www.swrcb.ca.gov/html/nonps.html http://www.swrcb.ca.gov/html/wtrshed.html

- State Water Resources Control Board applies 319 and other federal funds to target watersheds under the Watershed Management Initiative; not specifically for lake watersheds.

#### Connecticut

# http://dep.state.ct.us/Water/strategc.htm#Inland Water Resources

- Clean Lakes program and water quality assessment indicated but not described in detail.

### **Delaware**

- Lake Water Quality Assessment.
- one Phase I diagnostic study.
- one study to assess biocontrol of aquatic plants.

#### Florida

http://www.dep.state.fl.us/swfwmd/swim/s\_swmhab.html

http://www.dep.state.fl.us/swfwmd/p\_hillso.html

http://www.dep.state.fl.us/water/Slerp/nonpoint\_Stormwater/319h/319closeouts

/projsum.htm

## http://www.ifas.ufl.edu/~lakewatch/index.htm

- Surface Water Improvement and Management Act (SWIM) funded diagnostic studies and restoration projects on four lakes since 1987.
- Lake Atlas Program on selected lakes provides available water quality information, water resource maps, water quality maps, watershed delineation maps, and features such as ownership, boundaries, easements, and public access.
- lake protection projects funded by 319 since 1989 include: sediment removal demonstration project; stormwater retrofit project; land acquisition.
- Florida Lakewatch volunteer monitoring trained 1,500 volunteers to sample 400 lakes since 1991
- Florida Yard and Neighborhood environmentally friendly landscaping in lake watersheds.
- Florida Lake Regions poster (5000 copies); Florida Lakes Booklet; Florida Wetland Plant Identification book; Florida Aquatic Plant Identification cards.

#### Georgia

# http://www.ganet.org/dnr/environ/

- lake monitoring program, identified 34 lakes for 303(d) list.
- 7 Phase I studies with 314.

#### Illinois

## http://www.epa.state.il.us/water/conservation-2000/index.html

- temporarily operating under a large appropriation from the legislature (Conservation 2000 program) with approximately \$1 million annually over three years; matching grants have produced \$2.7 million in lake restoration projects over 3 years; programs listed below do not have a long-term dedicated source of funds.

- Illinois Clean Lakes Program funded 13 Phase I diagnostic studies, 3 Phase II implementation activities.
- Priority Lake and Watershed Implementation Program funded up to 13 shoreline erosion control projects.
- Lake Education Assistance Program (LEAP) funded \$500 grants to 200 schools and organizations to reach 10,000 people with education activities.
- hired four new people to provide technical, financial, and educational assistance to specific inland lakes.
- Ambient Lake Monitoring Program and Volunteer Lake Monitoring Program conduct lake monitoring.
- production of 13 "Lake Notes" fact sheets, 15 Lake Management Workshops, internet home pages, state lake association financial assistance, specialty workshops, other educational activities.

#### Indiana

http://www.ai.org/idem/owm/assessbr/nps/projs319.html http://www.ai.org/idem/owm/assessbr/nps/clptext.html http://www.dnr.state.in.us/soilcons/lakerive.htm http://www.dnr.state.in.us/soilcons/riverwat/index.htm

- lake monitoring at 300 lakes since 1988 (approximately 80 lakes per year), using the lake classification system (Eutrophication Index / Indiana Trophic State Index) developed by the Indiana State Board of Health in 1976; annual Indiana lakes management conference, quarterly newsletter, technical fact sheets; funded by Indiana Clean Lakes Program (IDEM) contracted to Indiana University with 314/319.
- nine Phase I studies, no Phase II activities or Phase III studies with \$1.9 million in 314 funds.
- one lake watershed study, six lake watershed projects, two lake construction projects, monitoring of two constructed wetlands through 319.
- Indiana Volunteer Lake Monitoring Program (IDEM) supports in-lake data from 72 lakes in 21 counties (as of 1991).
- Lake and River Enhancement program (LARE) at IDNR has funded over 110 lake diagnostic studies, 21 watershed projects, 23 design studies, 7 wetland construction or in-lake restoration projects, 2 engineering feasibility studies, and 2 watershed diagnostic studies with up to \$830,000 per year generated by a \$5 boat fee.
- Hoosier Riverwatch program hired a full-time coordinator with IDNR program funds and IDEM grant from EPA 104(b)(3); since 1996, conducted more than 40 day long workshops on water quality monitoring in streams and has granted \$66,000 to 158 groups for monitoring equipment, a number of which are lake associations or monitor lake watersheds.

#### Iowa

- 2 Lake Water Quality Assessments from 1978 1995
- 16 Phase I Diagnostic/Feasibility Studies (15 with 314; 1 state-funded)
- 10 Phase II construction projects with 314.
- coordinator for volunteer water quality monitoring since 4/98 with Iowa Fish and Wildlife Trust Fund (FWTF) and 319.

#### Kansas

- 7-12 lake watershed projects only on large lakes with > 2,000 acre surface area) under 319, focused on watershed preventive measures, not problem identification or quantification.
- Lake Water Quality Assessment (baseline monitoring) program.

## Kentucky

# http://www.state.ky.us/agencies/nrepc/dow/305b96.htm http://water.nr.state.ky.us/dow/grants.htm

- 120 lakes sampled for lake trophic state analyses and chemical/nutrient monitoring.
- several Phase I projects; no Phase II projects under 314; one Phase II under 319.

#### Louisiana

- spent \$200,000 on mercury monitoring in lakes.
- one lake water quality management plan.

#### Maine

# http://www.state.me.us/dep/blwq/pwaters.htm http://www.state.me.us/dep/blwq/mdeplake.htm

- Nonpoint Source priority watershed list includes 41 lakes to compete with other watershed projects for \$500,000 from 319 and proposed bond issue providing additional \$500,000; lakes addressed with "Lakes at Risk" and "Maine's Finest Lakes" lists.
- Volunteer Lake Monitoring program supports 280 volunteers on 300 lakes since 1971.
- lake watershed surveys / manual to identify sources of nonpoint pollution, not diagnosis of in-lake problems.
- few cooperative research projects on lake vulnerability, geographic analysis and BMP effectiveness.
- curtailed baseline lake monitoring program since 1995.
- removed lake restoration projects from priority lakes activities since 1995.

## Maryland

- initiation of volunteer lake monitoring program (proposed) with 319.
- publication of lake atlas (proposed) with 319.
- reassessment of trophic conditions / lake management activities (proposed) with 319.
- Phase I studies, Phase II activities, possibility of Phase III study (proposed) with 319.
- could use up to \$740,000 annually for 15 yr to fund Phase I studies on all threatened or impaired lakes, 15-30 Phase II activities, 15 Phase III studies if 314 were reinstated.

#### Massachusetts

## http://www.state.ma.us/dem/programs/lakepond/lakeapp.htm

- Lakes and Ponds Program (LPP) provides 50% of total cost up to \$10,000 per grant for diagnostic studies, management plans or other projects on public lakes and ponds.
- lake monitoring program referenced.

#### Michigan

## http://www.dnr.state.mi.us/www/mp96/lwm.html

- no lake projects funded since 1995.

- Water Management Section of the Land and Water Management Division of DEQ lists a goal to "protect Michigan's many high quality lakes from unnecessary degradation and rehabilitate those that have been culturally degraded" and to "reduce nonpoint source pollution to inland lakes by encouraging watershed management strategies and techniques that reduce sediment and nutrient pollution from entering streams and lakes."
- monitor water quality of inland lakes with funding from 314/319.
- monitor long-term water quality trends by citizen participants enrolled in the Self-Help program.
- represent the Department on lake boards formed under the Inland Lake Improvement Act to implement lake management projects.
- review and improve administrative rules for Aquatic Nuisance Control program; computerize elements of the program such as standardized treatment maps and permit forms.
- assist in the development and implementation of lake restoration techniques.

#### Minnesota

# http://www.dnr.state.mn.us/water.html

# http://www.pca.state.mn.us/water/cwpartner.html

- implementation of three lake projects through 319.
- Clean Water Partnership (CWP) grant and loan program includes lake projects, funds one-third to one-quarter of all requests with \$1,474,749 in grants and \$7,161,750 in loans for FY1995.
- \$10 million funded 47 Phase I, 19 Phase II projects since 1987; original projects under 314 funding in final stages of completion.
- Citizen Lake Monitoring Program covers 645 lakes.

## Mississippi

# http://www.deq.state.ms.us/domino/pcweb.nsf

- Clean Lakes Classification report (baseline monitoring).
- three Phase I studies, four Phase II activities.

#### Missouri

# http://www.state.mo.us/dnr/deg/wpcp/wpcserv.htm

- Nonpoint (319) and Clean Lakes (314) programs mentioned but no lake projects have been funded.

#### Montana

- lake educational materials and volunteer monitoring program (questionable continued state funding) under 314 and state funds.

## Nebraska

- several lake watershed projects funded under 319.
- no in-lake work other than sediment basins in lake tailwaters.

# **New Hampshire**

- programs are less intensive and rely on volunteers and in-house staff to conduct field work since 1995.

- several Phase I projects; four Phase II projects under 314.

# **New Jersey**

- CSLAP (lake volunteer monitoring) program reduced since 1995.
- very little effort on lake study or restoration without dedicated funding.

#### New Mexico

- one lake shore stabilization project with 319.
- collection of lake water quality data.
- one diagnostic study of 40 of estimated 2,460 playa lake or wetland basins with 314.
- citizen monitoring project (proposed) with 319.

#### New York

- eight or more diagnostic and lake management plans conducted with 314.
- implemented several lake management plans for wastewater treatment, habitat restoration and limited in-lake restoration.

## Ohio

## http://chagrin.epa.state.oh.us/programs/nps.html

- water quality assessment list and 319 program information do not indicate specific lake focus.

## Oklahoma

- Lake Water Quality Assessment monitoring program.
- one project to reduce sediment in a reservoir.
- four Phase I project proposals; two Phase II project proposals with 314.

#### Oregon

## http://waterquality.deq.state.or.us/wq/wqfact/lakes.htm

- Atlas of Oregon Lakes inventories 202 lakes and associated watersheds with minimum size of 50 acres for a natural lake and 100 acres for a reservoir as well as smaller lakes which are geographically representative or locally significant.
- Citizen Lake Watch Program supported by \$50,000 from 314 beginning in 1988.
- Seven Phase I diagnostic studies and two Phase II activities funded with 314, better linkage of Clean Lakes Program and Nonpoint Source Program funding is proposed.
- innovative regional / ecoregional approach (proposed).
- limited statewide lake monitoring program.

# Pennsylvania

# http://www.dep.state.pa.us/dep/deputate/watermgt/WC/Subjects/WQMonitoring&Assessment/pt3/23/9896.htm

- Lake Water Quality Assessment program funded by 314 addresses priority list of 160 lakes defined as "significant" (with a retention time of 14 days) and "publicly owned" (free public access or fee used to maintain access site and water quality); sample 90 lakes in groups of 15-20 annually.
- lake information in database with 9,000 lakes, ponds, and impoundments managed by two bureaus; Pennsylvania Fish and Boat Commission maintains its own database.

- several Phase I and II projects have been funded; program funds half of applications received.
- Phase I assessments did not require a local match, so several have been funded with no local group motivated for implementation.

#### **Rhode Island**

- monitoring of approximately 15 public access lakes through URI Watershed Watch.
- volunteer monitoring rapidly became the principle source of lake water quality data.
- position of volunteer coordinator eliminated in 1995.

#### South Carolina

http://www.state.sc.us/dhec/eqcburea.htm http://www.state.sc.us/dhec/wsmprog.htm http://www.state.sc.us/dhec/wtrwatch.htm

- Clean Lakes Coordinator position funded by the State since 1995.
- lake monitoring in statewide water quality assessments.
- limited Phase I and II projects in areas will be covered under TMDL development; Phase III studies covered under routine monitoring; 319 program mentioned but not specifically for lakes
- Water Watch program lists lakes as potential monitoring sites.

## **South Dakota**

- statewide lake monitoring, gap from 1995-97, now funded through 319.

#### Tennessee

# http://www.state.tn.us/environment/water.htm

- monitoring of all public lakes in the state.
- one project to address water quality problems in an impoundment.
- one project funded for local water quality agency to address lake water quality problems.

#### **Texas**

- two lake watershed projects.

# Utah

- statewide lake monitoring with \$10,000-20,000 annually.

#### Vermont

# http://www.anr.state.vt.us/dec/waterq/wq305b96/1996lwqa.htm#VLPP

- Vermont Lakes and Ponds Program (VLPP) funded 9 Phase I (4 state-funded), 9 Phase II activities with 314, 319, and state funds.
- lake monitoring program on 228 lakes since 1977, including biocriteria development and Lake Protection Classification System under 104 since 1977.
- Lay Monitoring Program includes 120 volunteers monitoring 70 lakes and 36 sites in Lake Champlain since 1979.

# Virginia

http://www.deq.state.va.us/wqap/305b.html

http://www.state.va.us/~dcr/sw/ss319.htm

# http://www.state.va.us/~dcr/temp/wqiahome.htm

- lake monitoring at 248 lakes, reservoirs, and ponds.
- Clean Lakes program (314) and Nonpoint program (319) referenced.
- Water Quality Improvement Fund of \$5 million per year for nonpoint problems.
- volunteer monitoring program initiated.

# Washington

http://www.wa.gov/ecology/wq/lakes/lakehome.html

http://www.wa.gov/ecology/eils/fw\_lakes/lk\_man.html

http://www.wa.gov/ecology/eils/fw lakes/lk main.html

- lake restoration projects with dedicated funds of \$1.8 million from Centennial Clean Water Fund (CCWF) with tax on tobacco products funding terminated in 1994; no further lake work conducted.
- 45 Phase I studies, 18 Phase II activities, 3 Phase III under 314, 319 and state funds; 6 Phase II (proposed) with 319.
- biannual monitoring at over 120 lakes since 1989.
- volunteer lake monitoring program.

## Wisconsin

# http://www.dnr.state.wi.us/eq/wq/lakes/

- Wisconsin Lakes Partnership (WLP) supports Self-Help Citizen Lake Monitoring Reports, Lake Planning and Protection Study information, education, organizational, technical, and financial assistance to local lake associations.
- State Lake Assessment at 50 lakes no longer funded.
- reduced citizen monitoring program, was up to 650 lakes.
- limited lake diagnostic work through Wisconsin Lakes Planning/Protection Grants; no projects to address lakes suffering habitat loss or early signs of eutrophication in northern Wisconsin.

#### Wyoming

# http://deq.state.wy.us/ms/outweb.htm

- three Phase I studies completed with 314.
- initial lake monitoring, not conducted since 1980s.

# LAKE PROGRAMS IN OTHER STATES. Sources: NALMS, web pages. Date: 3/24/98

Indiana Department of Natural Resources

Division of Soil Conservation

|                              | FUNDING SOURCE: |          |                 |          | PROGRAM DESCRIPTION: |                    |                  | diamana                  |                     |                      |
|------------------------------|-----------------|----------|-----------------|----------|----------------------|--------------------|------------------|--------------------------|---------------------|----------------------|
|                              | state           | state    | fed             | fed      | w.q.<br>assmt        | citizen<br>monitor | other            | diagnose<br>Phase I      | restore<br>Phase II | monitor<br>Phase III |
| <u>state</u>                 | ded.            |          | 314             | 319      | (#lakes)             | (#lakes)           | educ.            | (#lakes)                 | (#lakes)            | (#lakes)             |
| Alabama                      | <del>ucu.</del> | temp.    | <u>314</u><br>Y | <u> </u> | <u>(#14К63)</u><br>Ү | (#IANCS)           | <del>cauc.</del> | <del>(#18KES)</del><br>5 | (#IANCS)            | (#IAKES)             |
| Alaska                       |                 |          | Ϋ́              |          | ended                |                    |                  | 1                        |                     |                      |
| California                   |                 |          | '               | Υ        | Y                    |                    |                  | 2                        |                     |                      |
| Connecticut                  |                 |          | Υ               | •        | Ϋ́                   |                    |                  | _                        |                     |                      |
| Delaware                     |                 |          | •               |          | Ϋ́                   |                    |                  | 2                        |                     |                      |
| Florida                      | SWIM            |          |                 | Υ        | •                    | 400                | Υ                | 4                        | 3                   |                      |
| Georgia                      |                 |          | Υ               |          | Υ                    |                    | -                | 7                        |                     |                      |
| Illinois                     |                 | C200     | Υ               |          | Υ                    | Υ                  | Υ                | 13                       | 3                   |                      |
|                              |                 | 0        |                 |          |                      |                    |                  | -                        |                     |                      |
| Indiana                      | LARE            |          | Υ               | Υ        | 300                  | 72                 | Υ                | 119                      | 41                  | 2                    |
| Iowa                         |                 |          | Υ               | Υ        | ended                |                    |                  | 1                        |                     |                      |
| Kansas                       |                 |          |                 |          | Υ                    |                    |                  | 12                       | 12                  |                      |
| Kentucky                     |                 |          | Υ               | Υ        | 120                  |                    |                  | several                  | 1                   |                      |
| Louisiana                    |                 |          |                 |          | Υ                    |                    |                  | 1                        |                     |                      |
| Maine                        |                 |          |                 | Υ        | ended                | 300                |                  |                          |                     |                      |
| Maryland                     |                 |          |                 | Υ        |                      |                    |                  |                          |                     |                      |
| Massachusetts                | LPP             |          |                 |          | Υ                    |                    | Υ                |                          |                     |                      |
| Michigan                     |                 |          |                 | Υ        | Υ                    | Υ                  |                  |                          |                     |                      |
| Minnesota                    | CWP             |          | Υ               | Υ        | 1,900                | 645                | Υ                | 47                       | 19                  |                      |
| Mississippi                  |                 |          | Y               |          | Y                    |                    |                  | 3                        | 4                   |                      |
| Missouri                     |                 |          | Υ               | Υ        |                      | .,                 | .,               |                          |                     |                      |
| Montana                      |                 |          |                 | .,       |                      | Υ                  | Υ                |                          |                     |                      |
| Nebraska                     |                 |          | .,              | Υ        |                      |                    |                  | several                  |                     |                      |
| New Hampshire                |                 |          | Y               |          |                      |                    |                  | several                  | 4                   |                      |
| New Jersey                   |                 |          | Υ               |          | V                    |                    | Υ                | 40                       | 4                   |                      |
| New Mexico                   |                 |          | V               | Υ        | Υ                    |                    |                  | 40                       | 1                   |                      |
| New York                     |                 |          | Υ               |          | V                    |                    |                  | 8                        | 3                   |                      |
| Oklahoma                     |                 |          | Υ               | Υ        | Y<br>Y               | Υ                  |                  | 4<br>7                   | 3<br>2              |                      |
| Oregon                       |                 |          | Υ               | ī        | 90                   | ĭ                  |                  |                          |                     |                      |
| Pennsylvania<br>Rhode Island |                 |          | ī               |          | 90<br>15             | Υ                  |                  | several                  | several             |                      |
| South Carolina               | CLP             |          |                 | Υ        | 13<br>Y              | Ϋ́                 |                  | limited                  | limited             | limited              |
| South Dakota                 | CLF             |          |                 | Ϋ́       | ı                    | Ϋ́                 |                  | iiiiiileu                | iiiiiileu           | IIIIIIIIEU           |
| Tennessee                    |                 |          |                 | •        | all                  | '                  |                  | 1                        | 1                   |                      |
| Texas                        |                 |          |                 |          | ali                  |                    |                  | ı                        | 2                   |                      |
| Utah                         |                 |          |                 |          | Υ                    |                    |                  |                          | _                   |                      |
| Vermont                      | VLPP            |          | Υ               | Υ        | 228                  | 106                | Υ                | 9                        | 9                   |                      |
| Virginia                     | WQIF            |          | Ϋ́              | Ϋ́       | 248                  | Y                  | •                | J                        | J                   |                      |
| Washington                   |                 | CCW<br>F | Y               | Y        | 120                  | Ϋ́                 |                  | 45                       | 18                  | 3                    |
| Wisconsin                    | WLP             |          | Υ               |          | 50                   | 650                | Υ                | limited                  |                     |                      |

Wyoming Y ended 3

Key: acronyms are given for state programs; Y = yes, program exists; all = all public lakes in the State; ended = program terminated in 1995; several/limited = exact number not indicated.

Rev. 3/23/98, gmw /other states programs.doc